Advanced Powertrain Research Facility

Downloadable Dynamometer Database (D[3])- Test Summary Sheet

2010 Mazda 3 i-Stop

Vehicle Architecture	Conventional- Start Stop
Document Date	11/20/2012
Revision Number	1

Notes:
- Vehicle equipped with with i-Stop package
- Manual Transmission
- All tests completed in ECO mode
- EPA shift schedule modified based on vehicle shift light activity

Vehicle Setup Information

Test Cell Location	APRF- 4WD
Vehicle Dynamometer Input	
Test weight [lb]	3250
Target A [lb]	31.2
Target B [lb/mph]	0.462
Target C [lb/mph^2]	0.014
Test Fuel Information	
Fuel type	EPA Tier II EEE Gasoline
Fuel density [g/ml]	0.741
Fuel Net HV [BTU/lbm]	18459

Test ID [#]	Cycle	Cold start (CSt) Hot start (HSt)	Date	Test Cell Temp [C]	Test Cell RH [%]	Test Cell Baro [in/Hg]	Vehicle cooling fan speed: Speed Match [SM] or constant speed [CS]	Solar Lamps [W/m2]	Veicle Climate Control settings	Hood Position [Up] or [Closed]	Window Position [Closed] or [Down]	Cycle Distance [mi]	Cycle Fuel economy [mpg] (Modal)	Cycle HV battery Integrated net current [DC Ah]	Cycle HV battery Average Zero crossing Voltage [V]	Cycle HV battery Net Energy [DC kWh]	Cycle HV battery Net Energy Consumption [DC Wh/mi]
Test information				Test cell information			Test cell setup		Vehicle setup				Electric energy consumption				
Test sequence purpose: Standard testing																	
61012070	UDDS CS	CSt	12/21/2010,	22.45	42.18	29.40	Cst spd	Off	Off	Up	Down	7.46	27.3				
61012071	UDDS HS	HSt	12/21/2010,	22.66	42.43	29.40	Cst spd	Off	Off	Up	Down	7.47	29.7				
61012072	Highway	HSt	12/21/2010,	22.37	47.46	29.39	Cst spd	Off	Off	Up	Down	10.24	44.9				
61012073	US06	HSt	12/21/2010,	22.54	40.96	29.38	Cst spd	Off	Off	Up	Down	7.99	29.1				
61101004	Steady State Speed	HSt	01/04/2011,	22.62	45.80	29.38	Cst spd	Off	Off	Up	Down						
Full charge test summary											**Totals**						

Re-charging information

N/A Ambient temperature during charge

Level:

HV battery integrated current [DC Ah] **N/A**

Charger integrated current [AC Ah] **N/A**

HV battery integrated power [DC kWh] **N/A**

Charger integrated power [AC kWh] **N/A**

Summary notes

For the highway and US06 cycles only the second (hot) test results are presented in this summary.

Electric energy consumption:

HV battery Integrated net current --> Integrated current as reported by power analyzer

HV battery Average Zero crossing Voltage --> Calculated Average Zero crossing Voltage over the phase or cycle

HV Net Energy --> Integrated power as reported by power analyzer

Note that HV Net Energy is not equal to the product of HV battery Integrated net current times Average Zero crossing Voltage.

* The vehicle coast down information referenced from AVTA track testing

Advanced Powertrain Research Facility Data referencing:

- This data has originated from the Argonne National Laboratory D[3] website. http://webapps.anl.gov/vehicle_data/
- The purpose of this information is to provide advanced technology vehicle chassis dynamometer test data for the engineering community. Mostly comprised of vehicle benchmarking test results, it is intended for the better understanding of the technology and for education. Data from this website may not used as a source for publication or profit without consent of Argonne National Laboratory.
- Please contact d3info@anl.gov for questions, comments or inquiries.